From: Miller, Garyg
To: Neal, Dorothy
Subject: FW: San Jacinto Feasibility Study
Date: Friday, June 06, 2014 7:49:00 AM

Dotty,

Please put the email below into SDMS for -

SJRWP - RI - rel (for Administrative Record).

Thanks,

Gary Miller
EPA Remedial Project Manager
214-665-8318
miller.garyg@epa.gov

-----Original Message-----
From: Miller, Garyg
Sent: Friday, June 06, 2014 7:47 AM
To: 'Hayter, Earl J ERDC-RDE-EL-MS'
Subject: RE: San Jacinto Feasibility Study

Thanks Earl; this answers my question about how the 2005 Sediment Remediation Guidance statements about model limitations relates to the San Jacinto Site.

Regards,

Gary Miller
EPA Remedial Project Manager
214-665-8318
miller.garyg@epa.gov

-----Original Message-----
From: Hayter, Earl J ERDC-RDE-EL-MS [mailto:Earl.J.Hayter@erdc.dren.mil]
Sent: Thursday, June 05, 2014 5:34 PM
To: Miller, Garyg
Subject: RE: San Jacinto Feasibility Study

Gary,

Anchor QEA runs their sediment transport model decoupled from their hydrodynamic model, or in what is called the non-morphologic mode. What this means is that predicted changes in bed elevations (and therefore water depths) in grid cells due to erosion or deposition are not accounted for in the hydrodynamic model. As a result, the flow field is not adjusted to account for changes in bed elevations and therefore water depths.

Sediment transport models that are currently used today for simulating the transport of sediment in rivers, estuaries and coastal seas are not able to 1) predict changes in channel widths, due to, e.g., bank erosion on the outer bend of a meandering river, or 2) predict changes in planform geometry due to meandering of a river/stream channel.

Existing sediment transport models are frequently used to simulate 'big events' such as a 100-year flood. However, to do this would usually require more parameterization, an example of which is specifying a thicker initial sediment bed in areas that undergo net erosion during higher frequency events, e.g., 10-year flood. It would also require the sediment transport model to be run in the morphologic mode, i.e., with the hydrodynamic and sediment transport

models run in the dynamically linked or coupled mode. If the model predicted an area of significant scour, then the flow field in this portion of the model grid should be examined during the portion of the event when most of the scour occurred (e.g., during the rising limb of a flood event) to see if the simulated flows exhibit any signs of numerical instability that sometimes occur due to the use of too large a time-step and/or too coarse a grid.

Let me know if this is what you need.

Earl

> -----Original Message-----
> From: Miller, Garyg [mailto:Miller.Garyg@epa.gov]
> Sent: Wednesday, November 13, 2013 12:37 PM
> To: Schroeder, Paul R ERDC-RDE-EL-MS; Hayter, Earl J ERDC-CHL-MS
> Subject: [EXTERNAL] FW: San Jacinto Feasibility Study
>
> Next part of Feasibility Study - this is the first part of appendices.
>
>
>
> Gary Miller
>
> EPA Remedial Project Manager
>
> 214-665-8318
>
> miller.garyg@epa.gov
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>
> From: Miller, Garyg
> Sent: Wednesday, November 13, 2013 10:21 AM
> To: Paul R Schroeder (Paul.R.Schroeder@erdc.dren mil); Hayter, Earl J
> ERDC-CHL-MS
> Subject: FW: San Jacinto Feasibility Study
>
>
>
> Next part of San Jac Feasibility Study
>
>
>
> Gary Miller
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> EPA Remedial Project Manager
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> 214-665-8318
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> miller.garyg@epa.gov
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>
> From: Miller, Garyg
> Sent: Tuesday, November 12, 2013 3:20 PM
> To: Paul R Schroeder (Paul.R.Schroeder@erdc.dren mil); Hayter, Earl J
> ERDC-CHL-MS
> Subject: San Jacinto Feasibility Study
>

>
>
> Here is the Feasibility Study for the San Jacinto Site - this is the
> first of 4 parts (too big to email together.
>
>
>
> Paul - please review/comment on the adequacy of the proposed cap
> repairs/upgrades - and anything else you see. Does the plan seem
> adequate in light of your review of the TCRA cap? Slope? Materials
> grading? Areas proposed for additional work?
>
>
>
> Earl - please review/comment on the potential impacts of the various
> alternatives on the river flow/navigation capacity - see anything that
> wouldn't be acceptable or could cause flooding?; and anything you see
> that should be further clarified or discussed; also please
> review/comment on the relative impacts of re-suspending contaminated
> sediment due to dredging, mitigation measures, etc. Do the
> concentrations included in the Feasibility Study bar graphs seem
> reasonable? Perhaps what has been the experience at other dredging
> sites? During the TCRA construction they used silt curtains, but the current kept moving them around.
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>
> Thanks, and please let me know if you have any questions. FYI, I have
> left a message regarding the WAF with Kathleen Robinson here who I
> believe dealt with Marvene Seaman at your end.
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>
>
> Regards,
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>
>
> Gary Miller
>
> EPA Remedial Project Manager
>
> 214-665-8318
>
> miller.garyg@epa.gov
>
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